Adaptive Management: Structured Decision Making for Recurrent Decisions
(ALC3176)

What will the course cover?

This course builds on the fundamental principles taught in "Introduction to Structured Decision Making" (ALC3171) by focusing on the important special case of recurrent decisions.   Adaptive management is framed within the context of structured decision making, with an emphasis on uncertainty about responses to management actions and the value of reducing that uncertainty to improve management. The course explores the application of the Department of Interior's operational definition of adaptive management, which characterizes adaptive management as an iterative learning process that produces improved understanding and management over time. Course content includes the 9 steps of adaptive management summarized in the Department's Technical Guide: stakeholder involvement, management objectives, management alternatives, predictive models, monitoring plans, decision making, monitoring responses to management, assessment, and adjusting management actions.   This course is quite technical, with special focus on model building, formal methods of learning through monitoring, and principles of optimization.   Lecture concepts are reinforced with substantial exposure to case studies, as well as extensive hands-on lab exercises.

Course objectives:

At the end of the training, participants will be able to:

Define adaptive management in the way that DOI does, and distinguish this definition from other competing interpretations.

Recognize the conditions under which adaptive management could be applied. Describe the process of using adaptive management for managing natural resources. Design an adaptive management framework that appropriately involves stakeholders and other partners.

Articulate the role of predictive models in adaptive management, and discern the qualities of a desirable set of alternative models.

Understand how learning occurs in an adaptive context, and identify the critical aspects of a monitoring program that supports adaptive management.

Understand the role of optimization in adaptive management and work with a technical consultant to interpret and evaluate optimal management strategies.

Appreciate the legal and institutional challenges to implementing adaptive management and develop strategies to overcome them.

Who is the intended audience?

Biologists and managers in FWS and scientists in USGS who have basic experience with structured decision making and/or have completed the "Introduction to Structured Decision Making" course ALC3171. Participants should be comfortable with the concept and applications of dynamic models and with the use of computer programs such as Excel.

Who is teaching the material?

Principal instructors include scientists from the USGS with a breadth of experience in the application of adaptive management to natural resource conservation issues.

How do I register? Please visit **http://doilearn.doi.gov/** and follow instructions on the main page.